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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,640	02/08/2006	Lana S. Spencer	63159A	1316

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THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION,
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/567,640	Applicant(s) SPENCER ET AL.	
	Examiner Ling-Siu Choi	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>02/08/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-10 are now pending, wherein Claims 1-8 are drawn to a glass-filled coupled impact propylene copolymer composition and Claims 9-10 are drawn to a method for blow molding the composition.

Claim Objections

2. Claim 2 is objected to because of the following informalities: (a) Claim 2, line 1, "the coupled impact propylene polymer" is suggested to be changed to --the coupled impact propylene copolymer---- and (b) Claim 2, line 2, "an impact propylene polymer" is suggested to be changed to --an impact propylene copolymer--.

Appropriate correction is required.

Claim Analysis

3. Summary of Claim 1:

A glass-filled coupled impact propylene copolymer composition comprising	
A	a coupled impact propylene copolymer
B	a glass fiber
C	optionally a functionalized olefin polymer in a sufficient amount to act as a compatibility agent between the coupled impact propylene copolymer and the glass fiber

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramanathan et al. (US 2003/0069362 A1).

Ramanathan et al. disclose a coupled propylene polymer composition comprising (A) a coupled impact propylene copolymer, (B) a filler, and (C) an additional thermoplastic polymer, wherein the coupled impact propylene copolymer is the product of the impact propylene polymer and the coupling agent which is a sulfonyl azide such as 4,4'-oxy-bis(sulfonylazido)benzene; the filler can be a glass fiber; the additional thermoplastic polymer can be a functionalized polypropylene such as maleated polypropylene which reads on the compatibility agent ([0023], [0030], [0032], claims 1-3, 5, and 10). Ramanathan et al. further disclose the additional thermoplastic polymer is less than or equal to 30 parts by weight based on the weight of the coupled propylene polymer composition ([0031]). Ramanathan et al. furthermore disclose that a blow molded article can be manufactured by extrusion blow molding of the composition, wherein the article includes "a seat back, a knee bolster, glove box door,....a trunk board or an arm rest" ([0039], claim 16). Thus, the present claims are anticipated by the

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disclosure of Ramanathan et al.

6. Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramanathan et al. (US 2003/0069362 A1).

Ramanathan et al. disclose a process for blow molding a coupled impact propylene polymer composition, comprising the steps of (A) extruding a coupled impact propylene polymer in an extruder through a die; (B) forming a molten tube-shaped parison; (C) holding the parison within a shaping mold; (D) blowing a gas into the mold so as to shape the parison according to the profile of the mold; and (E) yielding a blow molded automotive article, wherein the coupled impact propylene polymer composition comprises (i) a coupled impact propylene copolymer, (ii) a glass fiber, and (iii) a functionalized polypropylene such as a maleated polypropylene and wherein the automotive article includes "a seat back, a head rest, a knee bolster, glove box door,....a trunk board or an arm rest" ([0023], [0030], [0032], claims 1-3, 5, 10, 14 and 17). Thus, the present claims are anticipated by the disclosure of Ramanathan et al.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the

invention was made.

8. Claim 1-3 and 6 -7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geddes et al. (US 4,997,875) in view of Ansems et al. (US 6,472,473 B1).

Geddes et al. disclose a composition comprising (A) a propylene copolymer, (B) a fiber reinforcing agent, and (C) a coupling agent, wherein the reinforcing agent is glass fiber and the coupling agent is a maleic anhydride-modified propylene polymer (col. 3, lines 8-14; claims 1, 6, and 8).


The **difference** between the present claim and the disclosure of Geddes et al. is the requirement of the propylene copolymer to be a coupled impact propylene copolymer.

Ansems et al. disclose a coupled impact propylene copolymer which has higher impact strength at low temperature and has an improvement in the ductile-to-brittle transition temperature [motivation], compared with a propylene copolymer, wherein the coupled impact propylene copolymer is formed by the reaction of a coupling agent [poly(sulfonyl azide)] with an impact propylene copolymer (col. 1, line 67; col. 2, lines 1-15; col. 3, lines 13-21; claim 1). Ansems et al. further disclose that the coupled impact propylene copolymer is useful for the fabrication of articles via extrusion or injection blow molding, injection molding, rotomolding, profile extrusion, sheet extrusion, or pipe extrusion (col. 9, lines 7-15). In light of such benefits, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use coupled impact propylene copolymer in the disclosure of Geddes et al. and thereby obtain the present invention.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.


LING-SUI CHOI
PRIMARY EXAMINER

October 25, 2006